Status of The Department of Housing and Urban Development's Year 2000 Efforts: Quarterly Progress Report for February 1999

I. Overall Progress. Provide a report of the status of the agency efforts to address the year 2000 problem, which includes an agency-wide status of the total number of mission-critical systems.

RESPONSE: HUD bases its progress reporting on quarterly goals for certification that the Department established in February 1997. These goals were formulated on the premise that because HUD was beginning early enough, had the necessary levels of skilled personnel and resources, and had a plan of sufficient scope and detail, that all of its systems would be made compliant well in advance of the next century. That is, renovation would be complete by September 30, 1998; certification by January 31, 1999; and implementation by March 31, 1999.

True to this schedule, on **January 28, 1999, HUD finished 100% of the Year 2000 certification work on its entire systems inventory**. This final period of repair work marks an 11 percent increase in certifications over the November report.

All HUD systems, both mission-critical and non-mission-critical, will be implemented into a compliant production environment by March 31, 1999. Currently, 168 of the 174 applications comprising fully **97-percent of HUD's entire inventory** have been **implemented back into production** in a Year 2000 compliant environment. Only six systems in HUD's entire inventory have not been implemented. Two are mission-critical systems that have been renovated. They will finish implementation by February 15, 1999. Two are mission-critical systems that are being built compliant. Both are on schedule and will be implemented prior to the March 31, 1999 OMB deadline. When implemented, the one remaining mission-critical system that is to-be-retired-with-replacement, will be removed from production. And finally, the last two are non-mission-critical systems that are being built compliant. Both are on schedule and will be implemented prior to the March 31, 1999 OMB deadline. (Refer to the charts in the response to questions **II.a.**, **b.**, and **c.** for further evidence of HUD's achievement.)

Compliance Status of Mission-Critical Systems

*Total Number of Mission-Critical Systems	Number Compliant	Number To Be Replaced	Number To Be Repaired	Number To Be Retired
56	55	1	0	0

***For this table, the four right-hand columns ("Number Compliant," "Number to be Replaced," "Number to be Repaired," and "Number to be Retired") must add up to the left-hand column ("Total Number of Mission-Critical Systems"). Over time, as systems are implemented, the "Number to be Repaired" and "Number to be Replaced" will decline, while the "Number Compliant" will increase by the same amounts. Ultimately, the "Total Number of Mission-Critical Systems" will be equal to "Number Compliant." Similarly, the "Number to be Retired" will also decline as systems are actually retired. As this occurs, the Total Number of Mission-Critical systems will also decline, in order to accurately reflect the total number of mission-critical systems left. Although the "Total Number of Mission-Critical Systems" should be fairly stable at this time, [HUD will] adjust this number, as well as the number in the relevant column on the right, as necessary, in order to reflect the identification of new systems or determinations that systems are not mission-critical. Any significant changes to the Total Number of Systems [will] be explained in a footnote.**

During this reporting period:

- Eight mission-critical systems were certified and implemented after being renovated.
- Two mission-critical systems were renovated, certified, and will complete implementation on February 15, 1999.
- Five mission-critical systems were retired after being replaced in production by compliant systems. The one remaining system will be retired, when its replacement system, being built compliant, is placed in production. The replacement system is on schedule and the remaining system will be retired by March 31, 1999.
- One mission-critical system was removed from production, without replacement.

With the exception of two mission-critical systems that complete implementation on February 15, 1999, HUD has implemented 100-percent of its mission-critical systems being renovated.

II. Progress of Systems Under Repair. Provide a report of the status of agency efforts to address the year 2000 problem, which includes the status of mission-critical systems under repair.

a. In the first row, indicate the dates your agency has set for completing each phase. In each report, restate these dates and indicate if there has been a change. In the second row, under "Total Number of Systems," indicate the baseline number of mission-critical systems that *have been* or *will be* repaired. Footnote and explain any changes to this number. Also in the

second row, present the number of mission-critical systems that have completed each phase of assessment, renovation, validation, and implementation.

RESPONSE: *see next page*

Status of Mission-Critical Systems Being Repaired

	Total Number of Mission-Critical Systems Being Repaired	Assessment	Renovation	Certification (Validation)	Implementation
Milestones		June 1997 3rd Qtr FY 1997	Sept. 30, 1998 4th Qtr FY 1998	Jan. 31, 1999 2nd Qtr FY 1999	March 31, 1999 2nd Qtr FY 1999
Current Number Complete	41	41	41	41	39 HUD's last two systems are implementing 2/15/1999

As revealed in the OMB chart above, HUD completed 100 percent of Year 2000 certification work on the mission-critical systems with the disposition "To Be Renovated." This is a 24-percent increase over the certifications reported last November. By February 15, 1999, HUD will have implemented 100 percent of its mission-critical systems. The last two mission-critical systems to be renovated are being implemented during the long President's weekend, when there will be sufficient time for the large data conversion. **HUD expects to be finished and have all mission-critical systems fully implemented as of February 15, 1999.**

b. Provide a description of progress in fixing or replacing mission-critical systems.

RESPONSE: Many of HUD's largest and most complex systems are also mission-critical systems. In keeping with common industry practice, these systems are undergoing renovation and certification in phases. A phase is defined as a clearly identified, self-contained function, capable of being renovated and tested independently from the rest of the application. Using the phased approach, the entire system can be counted as having completed a milestone (such as renovation) only when *every* phase of the system has successfully completed the milestone, even if a majority of phases are finished.

The table below demonstrates the progress made toward completion of ten large, mission-critical systems being renovated and certified by phases.

Certification work was completed on all phases of the ten systems during this reporting period. Additionally, all but two of the systems have completed implementation and are back into production. These two are LOCCS and PAS, HUD's largest accounting applications, which will complete their implementation by February 15, 1999.

Progress on Large Mission-Critical Systems Being Renovated and Certified by Phases

System Code	System Name & Acronym	Lines of Code	Total Phases	Renovation	Certification*	Implementation
A43I	Single Family Insurance System (SFIS)	1,158,617	8	Cmpl	*Certified: 11/6/98*	*Completed:* 12/13/98
A43C	Single Family Insurance System -Claims Subsystem (Claims)	457,957	16	Cmpl	*Certified: 1/11/99*	*Completed: 12/13/98*
A67	Line of Credit Control System (LOCCS)	600,000	18/1**	Cmpl	*Certified: 1/15/99*	*In process, due: 2/15/99*
A75	HUD Central Accounting & Program System (HUDCAPS)	1,212,608	2	Cmpl	*Certified 7/28/98*	*Completed:* 8/17/98
A80Q	Public Inquiry Communication Subsystem (PICS)	1,687,002	7	Cmpl	*Certified 9/29/98*	*Completed:* 12/13/98
A96	Program Accounting System (PAS)	600,000	17/1**	Cmpl	*Certified: 1/15/99*	*In process, due:* 2/15/99
F17	Computerized Homes Underwriting Management System (CHUMS)	618,210	5	Cmpl	*Certified: 1/6/98*	*Completed:* 12/13/98
F51	Institution Master File (IMF)	1,667,667	3	Cmpl	*Certified: 11/13/98*	*Completed:* 11/13/98
F87	Tenant Rental Assistance Certification System (TRACS)	2,551,776	2	Cmpl	*Certified 7/15/98*	*Completed:* 10/17/98
N31	Integrated Business System (IBS)	1,627,319	2	Cmpl	*Certified 9/25/98*	*Completed:* 9/18/98

*Several systems may have been certified in fewer phases than the number they are renovated in, with modules of related function undergoing certification testing together.

**LOCCS renovated in 18 phases, but underwent certification as a whole system. Similarly, PAS renovated in 17 phases, but was certified in its entirety.

All HUD systems, large and small, mission-critical and non-mission-critical, were certified Year 2000 compliant by January 28, 1999, and all but two

mission-critical systems have been implemented into a compliant production environment. These final two mission-critical systems will complete their implementation by February 15, 1999.

c. Provide a description of progress in fixing non-mission-critical systems, including measures that demonstrate that progress.

RESPONSE: As stated previously, HUD is confident that all of its systems, mission-critical and non-mission-critical, will be made compliant well in advance of the next century.

The chart below, derived from the OMB chart in the response to question **II.a.**, reflects HUD's progress with non-mission-critical systems that are being repaired. As this milestone breakdown reveals, all non-mission-critical systems have completed renovation. All non-mission-critical systems have completed certification. And finally, **100-percent of the renovated non-mission-critical systems have been implemented into a compliant production environment.**

Status of Non-Mission-Critical Systems Being Repaired

	Total Number of Non-Mission-Critical HUD IT Systems Being Repaired	Assessment	Renovation	Certification (Validation)	Implementation
Milestones		June 1997 3rd Qtr FY 1997	Sept. 30, 1998 4th Qtr FY 1998	Jan. 15, 1999 2nd Qtr FY 1999	March 31, 1999 2nd Qtr FY 1999
Current Number Complete	39	39	39	39	39

Internal Measurement of Progress

The next charts demonstrate the Year 2000 status of HUD's entire system inventory, which is how the Department measures its own progress. Two separate charts are provided: one to indicate our certification performance and the second to indicate our implementation achievement. Each chart contains a breakdown of the total inventory into mission-critical and non-mission-critical systems in all disposition categories: "Phase Out," "To Be Renovated," "Already Compliant," and "Being Built Compliant." Because of the all-inclusive construction of these charts, the rate of progress listed for

the charts below may differ from that listed for the earlier charts that depicted only renovating systems.

Year 2000 Certification Status of HUD's Entire Active Systems Inventory

All HUD IT Systems as of February 12, 1999	Total	Certified	Balance
Applications in Inventory	186		
Phasing Out	12		
Requiring Certification	174	174	0
To Be Renovated	80	80	0
Already Compliant	58	58	0
Being Built Compliant	36	36	0
TOTAL	**174**	**174**	**0**
Mission-Critical Systems			
Applications in Inventory	69		
Phasing Out	1		
Requiring Certification	68	68	0
To Be Renovated	41	41	0
Already Compliant	14	14	0
Being Built Compliant	13	13	0
Subtotal	*68*	*68*	*0*
Non-Mission-Critical Systems			
Applications in Inventory	117		
Phasing Out	11		
Requiring Certification	106	106	0
To Be Renovated	39	39	0
Already Compliant	44	44	0
Being Built Compliant	23	23	0
Subtotal	*106*	*106*	*0*
TOTAL	**174**	**174**	**0**

Certification of the Entire Inventory

As the above chart depicts, **HUD has now completed 100 percent of the Year 2000 certification work on its entire inventory**, an 11 percent increase over the last reporting period. One hundred percent of the inventory is now Year 2000 compliant: both mission-critical as well as non-mission critical.

The chart below reflects HUD's progress for implementation work covering the entire inventory. **Ninety-seven percent of the Year 2000 implementation of HUD's entire inventory is complete**; an increase of 23-percent from the 74-percent reported in the Department's November Quarterly Report.

Year 2000 Implementation Status of HUD's Entire Active Systems Inventory

All HUD IT Systems as of February 12, 1999	Total	Implemented	Balance
Applications in Inventory	186		
Phasing Out	12		
Requiring Certification	174	168	6
To Be Renovated	80	78	2
Already Compliant	58	58	0
Being Built Compliant	36	32	4
TOTAL	**174**	**168**	**6**
Mission-Critical Systems			
Applications in Inventory	69		
Phasing Out	1		
Requiring Certification	68	64	4
To Be Renovated	41	39	2
Already Compliant	14	14	0
Being Built Compliant	13	11	2
Subtotal	*68*	*64*	*4*
Non-Mission-Critical Systems			
Applications in Inventory	117		
Phasing Out	11		
Requiring Certification	106	104	2
To Be Renovated	39	39	0
Already Compliant	44	44	0
Being Built Compliant	23	21	2
Subtotal	*106*	*104*	*2*
TOTAL	**174**	**168**	**6**

d. Provide a description of the status of efforts to inventory all data exchanges with outside entities and the method for assuring that those organizations will be or have been contacted, particularly State governments. Provide a description of progress on making data exchanges compliant.

RESPONSE: As of February 12, 1999, 40 of the 44 HUD systems with data exchange partners have been implemented into the Department's Year 2000 compliant production environment. By February 15, 1999, this will increase to 41 of 44 systems, as HUD's accounting system, LOCCS, completes implementation. These 40 systems account for **117,304** data exchanges/interfaces with HUD's business partners, out of a total of **149,105**. This means that **79-percent of HUD's data exchanges are exchanging compliant data, as of February 15, 1999.** One hundred percent of HUD's systems that exchange data with the States are already compliant and implemented.

There remain 31,805 exchanges (21 percent) that have not been implemented. Only two of the 78,545 exchanges processed through mission-critical systems have not yet been implemented. Fifty-five percent of the non-mission critical exchanges have been implemented.

The chart below lists the 44 HUD systems with external interfaces, designates whether or not the system is mission-critical, displays the number of data exchanges each system has, and indicates the date each system was or will be implemented into the compliant production environment.

HUD Systems with External Data Exchanges

System Code	System Acronym	System Name	MISSN CRTCL ?	Number of Data Exchanges	Actual Implement. Date	Planned Implement. Date
A15	GCS	Geographic Code System	YES	4	4/30/98	
A43C	CLAIMS	Single Family Insurance (Claims)	YES	630	12/13/98	
A43I	SFIS	Single Family Insurance System	YES	4,000	12/13/98	
A49	NCBRS	National Credit Bureau Referral System	YES	5	8/27/98	
A51	FAADS	Federal Assistance Awards Data System	NO	1	7/16/98	
A67	LOCCS	Line of Credit Control System	YES	27,769		2/15/99
A75	HUDCAPS	HUD Central Accounting and Program System	YES	4	8/17/98	
A75I	PSCS	Administrative Accounting Personal SVCS Cost RPT Subsystem	NO	1	9/30/98	
A80B	SFPCS	Single Family Premiums Collection Periodic Subsystem	NO	31,802		3/17/99
A80D	DSRS	Distributed Shares and Refund Subsystem	YES	5	9/30/97	
A80N	SFMNS	Single Family Mortgage Notes Subsystem	YES	5	1/6/99	
A80Q	PICS	Public Inquiry Communication Subsystem	YES	2	12/13/98	

System Code	System Acronym	System Name	MISSN CRTCL ?	Number of Data Exchanges	Actual Implement. Date	Planned Implement. Date
A80RU	SFPCS	Single Family Premiums Collection Upfront Subsystem	YES	5	4/6/97	
A80S	SAMS	Single Family Acquired Asset Management System	YES	6	9/29/98	
A91	CCFF	Consolidated Cost & FTE Files	NO	1	5/6/98	
B07	CLS	Commitment Line System	YES	2	10/15/98	
B11	PTS	Pool Transfer System	YES	710	10/22/98	
B15	CHRIS	Check Record Issuance System	YES	2	12/20/97	
C381	TITLE V	Title V	NO	1	12/29/98	
D05	OPTIS	OHR Office of Personnel & Training Inquiry System	NO	1	3/30/98	
D21	DARTS	Departmental Accounts Receivable Tracking/Collection System	YES	1	7/21/98	
D43	NFC/PC-TARE	Personal Computer Time and Attendance Remote Entry	NO	1	2/4/98	
D72P	HATS	Human Resources Action Tracking System	NO	1	8/24/98	
F12	HECM	Home Equity Conversion Mortgages	YES	2	12/18/98	
F17A*	CLAS	Computerized Homes Underwriting Management System (CHUMS) Lender Access System *(see footnote)*	NO	2,795	1/31/99	
F17C*	FHAC	FHA Connection *(see footnote)*	NO	6,522	12/13/98	
F31	CCARS	Cash Control Accounting and Reporting System	YES	1	1/10/98	
F37A	SPIRUT	Staff Profile Information and Res. Utilization Tracking Data Warehouse	NO	1	6/22/98	
F42	CSFSS	Consolidated Single Family Statistical System	YES	2	8/17/98	
F42D	SFDMS	Single Family Default Monitoring System	YES	17,160	8/31/97	
F42H	HMDA	Home Mortgage Disclosure Act	YES	1	11/25/97	
F46	PMS	Multi-Family Property Management System	YES	1	5/4/98	
F47	MFIS	Multifamily Insurance System	YES	2		2/26/99
F49	MARS	Multi-Family Accounting, Reporting and Servicing	YES	1	5/4/98	
F51	IMF	Institution Master File	YES	2	11/13/98	

System Code	System Acronym	System Name	MISSN CRTCL ?	Number of Data Exchanges	Actual Implement. Date	Planned Implement. Date
F55	TEV	Tenant Eligibility Verification System	YES	2	9/25/98	
F71	DMCS	Title I Notes Servicing Debt Management Collection System	YES	2	1/16/99	
F72	TIIS	Title I Insurance and Claims	YES	1	2/11/99	
F86	MTCS	Multifamily Tenant Characteristics System	NO	4,430	9/30/98	
F87	TRACS	Tenant Rental Assistance Certification System	YES	28,218	10/17/98	
F89A	AFS	Annual Financial Statements	NO	25,000	6/30/98	
H09	LRAP	Labor Relations 2000	NO	1		3/15/99
J04A	RAPS	Regulatory Agenda Processing System	NO	1	3/31/98	
T25	AHS	American Housing Survey	NO	1	10/6/98	

*FHAC, system code F17C, is replacing CLAS, system code F17A, as the data exchange interface for the Computerized Homes Underwriting Management System (CHUMS), system code F17. Currently, 70 percent (6,522) of the data exchanges going to CHUMS are interfacing through FHAC and are Year 2000 compliant, while 30 percent (2,795) of the data exchanges are still interfacing through CLAS, and are not yet Year 2000 compliant. By April 1, 1999, all 9,317 data exchanges going to CHUMS will be interfacing through FHAC, and will be Year 2000 compliant. At that point, CLAS will be deactivated and removed from the active inventory of systems, and the total number of HUD systems with external data exchanges will be reduced to 43.

Inventory

HUD has identified an exhaustive list of data exchange business partners—approximately 84,000 institutions and individuals—who interface with the Department through the 44 systems listed above. The total number of data exchanges/interfaces (149,105) exceeds the number of business partners because many partners interface with more than one HUD system. The inventory of data exchanges was assembled in response to concerns and encouragement from OMB, the General Accounting Office (GAO), the Chief Information Officer (CIO) Council Committee on Year 2000, and the Chairman of the President's Council on Year 2000 Conversion, Mr. John Koskinen.

One hundred percent of HUD's systems that exchange data with the States are already compliant and implemented. The specific data exchanges with States have been compiled, posted on HUD's Year 2000 web site, and sent to the General Services Administration (GSA) on July 24, 1998, for posting to the GSA State Data Exchange web site. The last update of HUD's data on the GSA web site took place on January 20, 1999.

HUD is making its date formats available on its internet site. Business partners and other interested parties may access the format information at **www.hud.gov/cio/year2000/**. Included with the date formats are the names

and telephone numbers of program area points of contact, who know the applications from a business perspective.

Also posted at the site is a business partner information letter, signed by Deputy Secretary, Saul N. Ramirez, Jr., which was mailed to all of HUD's data exchange partners to inform them of HUD's Year 2000 plans for bringing all systems into compliance for the Year 2000. Other information posted at the site include an information brochure directed at HUD's business partners, the Department's reports to OMB, and HUD's Year 2000 Readiness Guide.

Awareness

HUD is continuing an extensive outreach program, led by HUD's Chief Information Officer, Gloria Parker, to profile the housing sector of the United States economy. The Department of Agriculture, the Department of Defense, and the Department of Veteran's Affairs are participating in this working group. This profile will ensure a comprehensive assessment of the housing sector's Year 2000 readiness. It will also enable rapid response should disruption occur.

Other activities promoting Year 2000 awareness to data exchange partners are outlined in the response to question **II.i**.

Testing

The Department's testing efforts follow HUD's standard systems development approach. Initially, HUD is performing unit and system testing at the computer application level and affirming that the revised format is successfully accepted or created by the application system. Often, end-user exchange partners are engaged in these tests, though their level of involvement in the process varies depending on the nature of the application.

High-level planning for integrated and end-to-end testing was completed on October 30, 1998. Detailed planning and execution have now begun.

By March 31, 1999, all HUD systems will have been certified Year 2000 compliant and implemented into the production environment. At that point, every end-user data exchange partner will be exchanging data in production via Year 2000 compliant application software.

e. Provide a description of efforts to address the year 2000 problem in other areas, including biomedical and laboratory equipment, and any other products or devices using embedded chips.

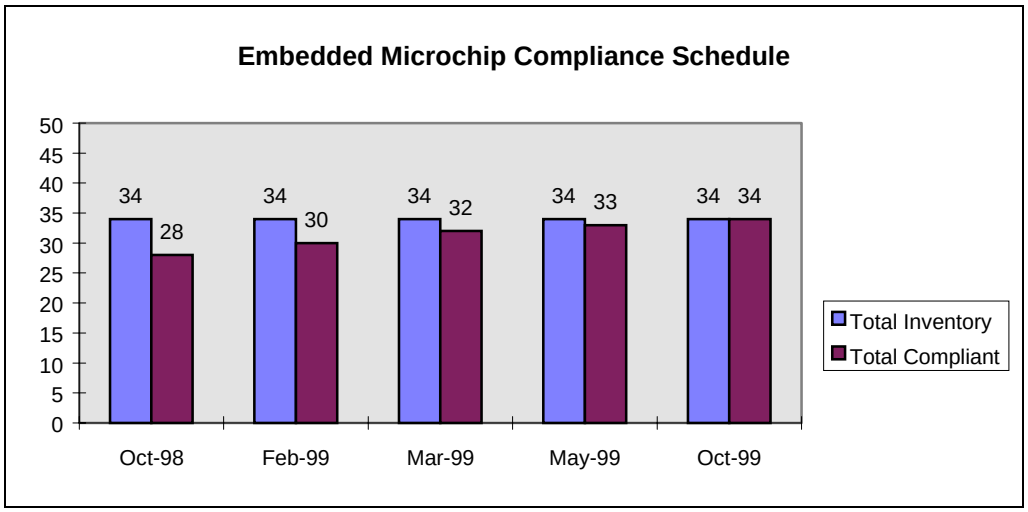
RESPONSE: As of January 26, 1999, **30 of 34** component classes (**88 percent** of the inventory) were Year 2000 compliant.

In the area of embedded microchips, a component class is defined by functionality (all devices in the group function similarly), *and* by the sharing of a distinct microchip problem and solution to that problem. For example: all the pagers in HUD's inventory are functionally similar and have the same microchip problem/solution. They therefore comprise one component class. On the other

hand, though HUD's four voice mail systems function similarly, they have four distinct microchip problems/solutions, and therefore comprise four component classes.

During this reporting period, two component classes were determined to be compliant. Vendor documentation was obtained on the Conversant Automated Telephone Attendant and the Ascent postage machine. Both letters verified that the equipment would be fully operational after the turn of the century. The four remaining components in HUD's inventory have committed dates by which they will be compliant and those action plans are being implemented according to schedule (see the chart below).

All devices containing embedded microchips will be compliant no later than May 1999, with the exception of the HUD headquarters parking garage access arm, which will be Year 2000 compliant on or before October 1999.



Items in the Inventory of Component Classes

- Phone Systems (2)
- Voice Response Systems (3 groups)
- Pagers
- Parking Garage
- Postage Machines (4)
- Print Server
- Visual Arts Software
- Security Phones
- Records/Retention
- Facsimiles (2 groups)
- Voice Mail (4 groups)
- Motor Pool (3 cars)
- Office Safety
- Conveyors
- Copiers (6 groups)
- Library System
- Elevators

f. Provide a description of efforts to address the year 2000 problem for buildings that your agency owns or manages. If your buildings are owned or managed by GSA, you do not have to report on those buildings. Please indicate instead, whether or not you are a member of the Building Systems Working Group of the Year 2000 Subcommittee of the CIO Council.

RESPONSE: HUD is responsible for facilities management of the HUD Headquarters building at 451 7th Street, SW, Washington, DC. All other buildings HUD occupies are managed by the General Services Administration (GSA). HUD is a member of the Building Systems Working Group of the CIO Council Committee on Year 2000.

All devices containing embedded microchips will be compliant no later than May 1999, with the exception of the HUD headquarters parking garage access arm, which ill be Year 2000 compliant on or before October 1999.

g. Provide a description of efforts to address the year 2000 problem in the telecommunications systems that your agency owns or manages. If your systems are owned or managed by GSA, you do not have to report on those systems. Please indicate instead whether or not you are a member of the Year 2000 Subcommittee of the CIO Council.

RESPONSE: The Department has developed a Year 2000 Telecommunications Program to ensure that HUD's telecommunication systems, like its application systems, will be fully functional before, during, and after the Year 2000.

HUD's inventory is broken out by high-level categories called sub-systems. Currently, 264 out of 271 sub-systems **(97 percent)** are compliant. The following matrix summarizes HUD's current status based upon these sub-systems:

Description of Sub-System	Assessed	Upgrading	Compliant	Total
EDI	17	0	17	17
File Servers	62	1	61	62
Internet	55	1	54	55
LAN	49	3	46	49
WAN	71	2	69	71
Video Conferencing	17	0	17	17
TOTAL:	***271***	***7***	***264***	***271***

HUD will have all its telecommunication subsystems upgraded, validated Year 2000 compliant, and operational by April 1, 1999.

Team 2000 members and HUD's telecommunication managers participate in the CIO Council Committee on Year 2000, GSA Telecommunications Subcommittee meetings, work groups, and sponsored forums. GSA has provided the Department with guidelines for testing and contingency planning. In turn, HUD is sharing information on its activities and test experience with the GSA subcommittee.

h. Provide a description of the status of the Year 2000 readiness of each government-wide system operated by your agency (e.g., GSA will report on FTS 2000).

RESPONSE: The only government-wide system that the Department operates is the Credit Alert Interactive Voice Response System (CAIVRS). CAIVRS provides information on whether or not a borrower (or co-borrower) is currently in default or has had a claim on an FHA mortgage within the last three years. The other federal agencies using CAIVRS are the Department of Agriculture, the Department of Veterans Affairs, the Small Business Administration, the Department of Education, and the Department of Justice.

CAIVRS completed renovation on February 18, 1998, and finished system testing on April 5. It was certified Year 2000 compliant on April 24, and was implemented into the production environment on May 5, 1998, two months ahead of schedule.

i. Please include any additional information that demonstrates your agency's progress. This could include charts or graphs indicating actual progress against your agency's schedule, lists of mission-critical systems with schedules, success stories, or other presentations.

RESPONSE:

<u>Insight into Ginnie Mae Integrated Y2K Testing</u>

Ginnie Mae has been very proactive in its posture towards addressing the Year 2000 problem within its information systems. Beginning in 1996, Ginnie Mae performed a preliminary impact analysis to assess the impact of the date rollover on critical business system applications. This effort provided the underlying support to specify, to each of Ginnie Mae's business partners, the expectations required to remediate Ginnie Mae's systems. As of September 1998, each of these business partners have remediated the mission critical business systems. Following remediation each of these critical systems have been implemented in the production environment. To ensure Ginnie Mae's Year 2000 readiness, it has developed a Year 2000 Business Continuity Contingency Plan. Pivotal to developing this plan was the need to identify the mission critical business functions of Ginnie Mae. The identification of these business functions have been used to focus testing and resource planning throughout the preparedness process.

As part of the mortgage industry response to the Year 2000 challenge, the Mortgage Banking Association (MBA) is sponsoring an industry-wide test that will enable business partners to execute business transactions and share data in a Year 2000 environment. This effort has been planned with the participation of Ginnie Mae, Fannie Mae, Freddie Mac, the MBA, and major mortgage banking institutions. The approach taken by the MBA was to identify key business transactions throughout the life of a mortgage loan and build corresponding test transactions. The MBA requires that all participants have already completed internal testing. Ginnie Mae has strongly encouraged its issuers to participate in this test.

As part of the MBA Y2K readiness test, Ginnie Mae will be participating in the industry-wide Y2K test, testing three transactions that pose the highest risk to Ginnie Mae in the event of a Y2K failure:

- Issuance of new pools through GinnieNET;
- Reporting security balances;
- Payments to Investors.

To ensure that all systems are ready, Ginnie Mae plans to conduct an end-to-end test on these three transactions. Ginnie Mae issuers testing these transactions (or where appropriate, their service bureaus) will be expected to have completed Y2K remediation and testing of their own computer based systems. They must also have the ability to simulate future dates and have a test database that they can use for this test.

The Year 2000 integrated testing is one of a number of activities Ginnie Mae is performing to ensure its Year 2000 preparedness. Their approach requires close integration, working seamlessly with its business partners. The results of the testing will be used not only to assist Ginnie Mae, but also to provide valuable feedback to the industry, and to assist issuers and other business partners with their ongoing Year 2000 program initiatives. Ginnie Mae has interfaces with 91,700 organizations, including active issuers, GinnieNET custodians, Ginnie Mae investors, REMIC Trustees, and Platinum Sponsors.

Issuance of new pools through GinnieNET

Ginnie Mae issuers will:

- Update their computer systems with the loan level detail provided in the MBA Y2K readiness test packet;
- Generate the loan detail import file for GinnieNET
- Add the pool and loan level detail to GinnieNET
- Submit the pool to GinnieNET network
- Have their document custodian initially certify the pool.

Chase, as Ginnie Mae's Pool Processing Agent, using the simulated dates will:

- Pull the certified pools off the GinnieNET network
- Process the pools through the mainframe
- Re-edit the pools,
- Check for master agreements

CLS, using the simulated dates will:

- Verify the issuer's status to issue pools
- Check the available commitment authority and obligate the funds
- Return a transmission to Chase acknowledging pools are updated
- Generate a report identifying any rejections.

Chase, as Ginnie Mae's Pool Processing Agent will:

- Update the mainframe with the CLS acknowledgment
- Release (i.e., approve) the pools
- Transmit the release and settled pool files to the MBS Division of DTC
- Create the daily and weekly pool issues tapes (for use by other business partners).

Reporting security balances

Ginnie Mae issuers (or service bureaus) using the simulated dates will:

- Update their computer systems with the pool detail provided in the MBA Y2K readiness test packet
- Transmit the file with the security balances to Global Payment Systems (GPS)

Chase, as Ginnie Mae's Registry/Transfer/Paying Agent will:

- Receive the file from GPS
- Process the data in their mainframe (including calculation of factors)
- Transmit the balances to CLS (including balances for Platinum pools which are not part of the MBA test)
- Create factor tapes for other business partners
- Transmit the factors to the MBS Division of DTC

Payments to Investors

Ginnie Mae issuers (or service bureaus) using the simulated dates will:

- Update their computer systems with the pool detail provided in the MBA Y2K readiness test packet
- Create the file for the form HUD 11714 - Remittance Advice
- Transmit the file to the MBS Division of DTC

The MBS Division of DTC using the simulated dates will:

- Process the file through their system
- Effect payments to their investors

Outreach to Business Partners and HUD Field Offices

HUD continues to provide information on Year 2000 issues and solutions to business partners, Department personnel, and local, State, and Federal officials. Copies of HUD's Y2K brochure, directed at the Department's data exchange partners, were also distributed at each of the events listed below:

- HUD's Assistant Secretaries, the Deputy Secretary and the Secretary delivered the Year 2000 message as they toured the country discussing the HUD budget.

- Team 2000 representatives spoke before the Colorado Mortgage Lender's Association in Denver, Colorado, on January 20, 1999. A panel discussion followed.

- Pamela Woodside, HUD's Team 2000 Project Manager, delivered a speech on Year 2000 Awareness at the Public Housing Authority Director's Association (PHADA) conference in Miami, Florida, on January 26, 1999.

- Members of Team 2000 are developing a Year 2000 video and companion workbook to provide immediate and profound guidance to the nation's Public Housing Authorities and Multi-family owner/agents.

j. Describe efforts to ensure that Federally-supported, State run programs (including those programs run by Territories and the District of Columbia) will be able to provide services and benefits. In particular, Federal agencies should be sensitive to programs that will have a direct and immediate affect on individuals' health, safety, or well-being. Include a description of efforts to assess the impact of the Year 2000 problem and to assure that the program will operate. In addition, provide the following information for those programs listed in Attachment D (if the information is not available, provide dates when it will be available). [NOTE: The programs listed in Attachment D are either HHS, DOL or USDA programs.]

1. The date when each State's systems supporting the program will be Y2K compliant.

2. A list of States, if any, for which the Y2K problem is likely to cause significant difficulties in the States' operation of the program. Also provide a list of States which are not likely to encounter significant difficulties.

3. For those States likely to have significant difficulties, a brief description of any action that the Department is taking to assure that the program will operate.

RESPONSE: Through the Department's outreach efforts, HUD has conducted several data gathering efforts to assess how the readiness of its business partners may influence the effectiveness of its programs. HUD has further examined where other Federal agencies are having an impact on its business partner community. With this analysis, HUD has isolated, first, the community of business partners whom HUD believes are less well prepared, and second, where HUD is focusing its efforts. In effect, HUD acknowledges that although the banking industry has a profound impact on insurance and affordable housing, other agencies, including the Federal Reserve and the Federal Deposit Insurance Corporation are providing oversight and leadership to the banking industry. Public Housing Agencies and State Housing Finance Agencies, on the other hand, are key providers of housing but who are benefactors of far less attention than that of our banking partners. HUD is, therefore, concentrating its efforts to deliver immediate and profound assistance to this partner community. The assistance HUD is pursuing takes two forms; one of policy and one of more technical assistance.

Policy assistance: Through discussions with national associations, HUD's own program area managers, and others, we continue to explore and understand the impact the Year 2000 problem is having on these business partners. HUD is examining its policies to consider if alterations would facilitate the partners' ability to respond and manage the risks. To exemplify this issue, consideration has is being given to whether or not it would be effective to include Year 2000 readiness as criteria to be included in, for example, HUD's Annual Financial Audits or in its Enforcement Centers.

Technical assistance: As a result of a national telephone survey conducted by HUD's Team 2000 at the end of November 1998, HUD determined that although many have heard of the Year 2000 problem, there are still many of HUD's business partners who have only recently begun to address the issue, and don't have a real appreciation of how to proceed effectively. The target population includes Multi-family owner/agents and Public Housing Agencies, including Tribes and Tribally Designated Housing Entities. State Housing Finance Agencies and grantees will also be benefactors of this effort. Specifically, HUD will deliver a video and companion workbook to more than 18,000 of its business partners who are in the business of managing building operations for their residents. The video and workbook are designed to promote action on the part of the building manager, by providing concise steps, sample letters, comprehensive lists and model products to guide the agent in how to most effectively prepare the facility for the advent of the Year 2000.

III. <u>Verification Efforts.</u>

a. Describe the process by which mission critical systems are identified as Y2K compliant for purposes of this report.

RESPONSE: The Department awards the classification of "certified" to mission-critical systems, if and only if, a review team has confirmed that the software has been tested successfully in a forward-dated, compliant environment according to standard Year 2000 compliance scenarios and guidelines. The category compliant, in this report, includes certified systems as well as systems that had been assessed, originally, as Compliant and Already in Production.

We are aware of some confusion regarding whether or not we should consider systems **compliant only when implemented**. For HUD, the distinction is moot. HUD has only two certified mission-critical systems that are not also implemented. Both implementations will be complete by February 15, 1999.

b. Describe how and to what extent internal performance reports (i.e., compliance of systems repaired and replaced) are independently verified. Provide a brief description of activities to assure independent verification that systems are fixed and to assure that information reported is accurate. Also, identify who is providing verification services (i.e., Inspectors General or contractors).

RESPONSE: The Department retained PricewaterhouseCoopers LLP (PwC) to provide independent verification and validation services to assist HUD management with the Year 2000 Project. The primary objective of PwC's continuing work is to identify potential risks associated with the Department's Year 2000 compliance effort.

Since the November 1998 Quarterly Report, PwC has reviewed and analyzed HUD's:

- Business Process Continuity Contingency Plans (BPCCP)
- Integrated Certification Test (ICeT) planning
- Year 2000 Project status reporting
- Program office participation in the Department's Year 2000 readiness efforts.

PwC presented their findings in a series of regular meetings with the Chief Information Officer and through a series of memoranda.

Business Process Continuity Contingency Plans

PwC reviewed thirty detailed contingency plans using a checklist based on Government and industry sound program practices. Their findings will help HUD ensure the completeness of those plans by identifying areas that require additional consideration and can be improved while building upon the foundation established by the initial Business Process Continuity Contingency Plans. HUD views these contingency plans as organic documents to be further developed, reviewed, and refined.

Integrated Certification Test (ICeT) planning

PwC analyzed the Integrated Certification Test (ICeT) Cluster Test descriptions and approach document to identify potential risks associated with HUD's end-to-end testing strategy and procedures. Their review included attending weekly technical and strategy meetings, such as the Year 2000 coordinator and ICeT test coordination team meetings, to stay abreast of cluster test planning and general program progress. HUD is addressing areas of potential risk identified by PwC.

Year 2000 Project Status Reporting

Team 2000 produces a weekly Year 2000 status report for HUD management, which provides schedule information for certification and implementation of mission-critical and non-mission-critical software applications.

Since the Department

- has completed certification of all mission-critical and non-mission-critical systems,
- expects to complete implementation of all mission-critical systems by February 15, 1999,
- and will complete implementation for all non-mission-critical systems well in advance of the OMB target date of March 31, 1999,

PwC has recommended broadening the focus of the weekly status report to include more information regarding:

- Program management involvement
- Status of other systems, such as embedded chips and computer operating environments
- Risk Management
- Interfaces
- Configuration Management

Program Office Participation in the Department's Year 2000 Readiness Effort

PwC has continued to monitor the level of program office participation in HUD's Year 2000 readiness effort. Through the consistent effort of Team 2000 and the CIO, the Department is developing a better, more widespread appreciation for the business issues of Year 2000, no longer considering the effort as simply an information technology problem. Through participation in the Department's Technology Investment Board Executive Committee, and through direct meetings with the CIO, executive staff are becoming more involved in the preparation, execution, and verification of the Integrated Certification test and the development and testing of business process continuity contingency plans.

IV. Organizational Responsibilities.

a. Describe how your Department/Agency is organized to track progress in addressing the year 2000 problem. (If you have provided this information in the past, only provide it again where it has changed.) Include in your description the following:

1. Describe the responsible organizations for addressing the Year 2000 problem within your Department/Agency and provide an organization chart.

RESPONSE: HUD's organizational structure for Year 2000 activities has been in place since June 1996, when the Year 2000 Project Office (Team 2000) was established. During this reporting period:

- The CIO, Gloria R. Parker, was given organizational responsibility and authority for the direct oversight and control of the Year 2000 staff.
- Leslie H. Graham, Jr., George L. Suggs, and Algrid A. Taoras retired from Office of Information Technology.
- The Department appointed a Director for the Office of Information Technology, Scott Cragg, who joins us after serving with the Assistant Secretary of the Navy for Research, Development, and Acquisition. Scott brings a wealth of diversified experience that includes significant experience in Program Management, Systems Engineering, Information Systems Development, Corporate Operations, and Business Reengineering and Reform.
- Michael J. Cunningham was moved from Director, Administrative Systems Division, to the Director of the Systems Engineering Group, a position formerly held by Mr. Suggs.
- Carolyn Cockrell was moved from Director, Departmental Systems Division, to the Deputy Director of the Systems Engineering Group, a position formerly vacant.
- Kathleen Picot replaces Michael Cunningham as Director, Administrative Systems Division.
- Holloway Coats replaces Carolyn Cockrell as Director, Departmental Systems Division.
- Dennis Peacock replaces Algrid Taoras as Director, Housing Systems Division.

Below is a listing of HUD's key Year 2000 personnel during this reporting period:

- Saul N. Ramirez, Jr., Deputy Secretary
- Gloria R. Parker, Chief Information Officer
- Pamela Woodside, Team 2000 Project Manager
- Scott Cragg, Director, Office of Information Technology
- Michael Cunningham, Acting Director, Systems Engineering Group
- Three Development Directors:
  - Dennis Peacock, Acting Director, Housing Systems Division
  - Holloway Coats, Acting Director, Departmental Systems Division

- Kathleen Picot, Acting Director, Administrative Systems Division.

As CIO, Mrs. Parker has the primary responsibility for ensuring that all elements that support the business operations of HUD—IT systems and non-IT facilities and services—remain fully functional before, during, and after the Year 2000. The Department's Year 2000 (Y2K) compliance program is doing well under the executive leadership of the CIO. The program also receives the direct oversight attention of both Secretary Cuomo and Deputy Secretary, Saul Ramirez, Jr., and is reviewed at the monthly Technology Investment Board Executive Committee meeting. The Office of the CIO and the Office of Information Technology are working together in close cooperation, and have the full confidence and support of the Secretary and Deputy.

The CIO's primary support in the Year 2000 organization comes from two sources: Ms. Woodside, who as Team 2000 Project Manager, has the day-to-day responsibility of tracking and reporting the progress, and Mr. Cragg and Mr. Cunningham, who manage the resources necessary to make the corrections for Year 2000.

The three development directors, Ms. Picot, Mr. Peacock, and Mr. Coats, working at Mr. Cunningham's direction, are specifically responsible for the code renovation and testing of IT systems. Certification (validation) of the renovated code is the direct responsibility of Ms. Woodside and Team 2000.

Year 2000 corrections involving non-IT systems, telecommunications, and other facilities are being handled by the HUD personnel who are specifically in charge of those areas, with guidance and direction from the CIO and Ms. Woodside.

Mr. Ramirez, as Deputy Secretary, is responsible for Year 2000 awareness and priorities at the highest Departmental level. He is kept informed of Year 2000 progress and issues on a continual basis by the CIO. The CIO also presents monthly Year 2000 status updates to HUD Secretary, Andrew Cuomo, at the Technology Investment Board Executive Committee meetings.

2. Describe your Department/Agency's processes for assuring internal accountability of the responsible organizations. Indicate how frequently the agency head or Chief Operating Officer is briefed on Year 2000 progress. Include any quantitative measures used to track performance and other methods to determine whether the responsible organizations are performing according to plan. Include a discussion of the oversight mechanism(s) used to assure that <u>replacement</u> systems are on schedule.

RESPONSE: HUD's process for assuring internal accountability of the responsible organizations is accomplished by use of a HUDwide, Integrated Implementation Plan (IIP), a project management tool, which facilitates weekly status reviews at the working level. The plan and status are continually reviewed by the Team 2000 Project Manager where risk is assessed and corrective action initiated. Higher level management oversight is provided to the Year 2000 project on a weekly, monthly, and quarterly basis by Mrs. Parker, Mr. Cragg, and Mr. Cunningham. Mrs. Parker provides regular updates on the Year 2000 project to the Technology Investment Board Executive Committee, which is chaired by the Secretary and comprised of his Principal Staff.

Internal Metrics and Status Mechanisms (Step by Step)

(1) The project leaders/coordinators of the system development teams maintain and update system schedules in the Status 2000 database.

(2) Status 2000, a Lotus Notes database, is the source of Year 2000 Project Manager/Team 2000 review and inventory metrics. It provides an automated update to the IIP. The IIP gives an understanding of system schedules from a Departmental perspective.

(3) Team 2000 verifies the IIP data, and from it, produces a weekly internal report called the IIP Status Report, which consists of three sections:

- The Red Light section lists systems that have not completed the assigned tasks towards Year 2000 compliance by the estimated completion date(s). Listed in this section is any system and task that is late, the estimated date of completion, how many calendar days the system is now behind, and the reason for the slippage.
- The Yellow Light section identifies systems that have extended their estimated date of completion for specific tasks so that management is alerted to the schedule change and is prepared for the possibility that some assistance or corrective action may be necessary in the near future. In this section, the system and the task with the revised completion date are listed, along with the original completion date and the reason for the extension of time.
- The Green Light section lists the number of applications that are currently certified as Year 2000 compliant and the number of systems that are progressing on schedule towards Year 2000 compliance.

The IIP Status Report is a management tool for Mr. Cunningham and the three development directors, who use it to determine where to apply the extra assistance and resources necessary to bring the highlighted systems back on schedule. The report is distributed to the CIO, the Director of Information Technology, and the OIG.

Replacement Systems

The Department recognizes the scheduling complexity in situations where a system is to be replaced by another system and then retired. HUD's existing tracking mechanisms provide methods of monitoring those situations so that the replacing systems are completed on-schedule and are certified Year 2000 compliant.

When a system is classified with the disposition "To Be Phased Out With Replacement," the Status 2000 database collects information on the replacing system; its schedule for development, certification, and implementation; and the date the retiring system will be taken out of production. This information subsequently appears in both the IIP and in the IIP Status Reports so that management can readily foresee any scheduling problems that might arise with replacing/retiring systems and institute the necessary corrective actions.

These corrective actions include a contingency plan, specific to systems being replaced, that is triggered by a date in the tracking mechanisms. This date, referred to internally as the "Point of No Return" date, appears in Status 2000 as the "Last Date that a Contingency Plan could be Started and Successfully Completed." Such a date was determined for each replacement situation during the Application Analysis Phase of the Year 2000 Project Plan. It is based on the estimated failure date of the system being replaced in relation to the time necessary to successfully complete the contingency plan, which is the renovation of the existing system.

3. Describe the management actions taken and by whom, when a responsible organization falls behind schedule.

RESPONSE: The management actions taken when a responsible organization falls behind schedule occur at several levels in HUD. At the top level, the CIO provides Department-wide leadership and management oversight of the Year 2000 Project, ensuring that immediate and appropriate actions are taken. At the next level, Mr. Cragg and Mr. Cunningham provide qualitative management oversight for the overall budget and the integrated implementation of Year 2000 efforts. To ensure these efforts are accomplished in an effective manner, Mr. Cunningham, with guidance from the Team 2000 Project Office, monitors and holds the three development directors accountable for their specific commitments and schedule achievement.

Ms. Woodside provides leadership, oversight, and qualitative reviews of plans and progress, and quickly refocuses resources on any issue threatening the Year 2000 Project's success. The Team 2000 Project Office monitors project status on a weekly basis, and if an organization falls behind schedule, brings the issue(s) to the immediate attention of the development director(s) for action. The directors, in turn, identify any issues impeding their progress to Ms. Woodside and Mr. Cunningham.

Finally, the three development directors have direct authority over the software renovation teams, guiding their achievements in accordance with Team 2000 goals and managing performance at the line level. The directors are accountable for establishing and achieving the individual application schedules. Weekly status reporting and milestone achievement reporting have been established to ensure management actions are taken to address problems quickly.

V. Continuity of Business Plans

Describe your agency's approach to and progress in developing its Business Continuity and Contingency Plan (BCCP). Agencies should use the GAO document, Year 2000 Computing Crisis: Business continuity and contingency Planning, August 1998), as a guide to such planning. Describe the measures of progress being used to assure that local plans are developed and tested (e.g., status of management assurances that plans are complete and have been tested) and provide a status of those measures. Please also include the following information in the description of your planning activity (If you do not have the information requested, state when it will be available.):

1. **Identify the high-level core business functions addressed in your BCCP.**
2. **Provide a master schedule and key milestones for development, testing, and implementation of your BCCP.**

RESPONSE: In accordance with the GAO guidelines, HUD's Business Process Continuity Contingency Plan (BPCCP) was completed on June 30, 1998, and a copy was attached to HUD's August Quarterly Report. The BPCCP is a high-level document that identifies possible risks and/or threats due to Year 2000 failures in HUD systems and non-HUD systems, as well as who would be affected by those failures. The final draft of the BPCCP was approved by all Assistant Secretaries and Center directors on October 8, 1998.

Year 2000 Contingency Plans that relate directly to the approved BPCCP were completed on January 11, 1999. In support of the high-level identifications of business risks in the BPCCP, thirty detailed contingency plans have been written identifying the specific steps HUD will take to ensure the continuity of core business functions. The completed plans are currently going through the process of concurrence by all Assistant Secretaries and Center Directors and we expect concurrence from all executives by February 16, 1999. A business resumption team has been designated for each plan. The business resumption team is responsible for updating their individual contingency plans continually and these plans will be reviewed quarterly by all Assistant Secretaries and Center Directors for content changes and maintenance of key milestone activities. If any contingency plan activities fall behind schedule, the plan will fall into a tier-one category for review and update on a monthly basis by the executive office of that Program Area.

In the BPCCP, HUD addresses four primary business functions and their sub-functions, and two key processes:

Primary Business Functions

- Underwrite and Service Insurance (Single Family, Multifamily, and Title I)
  - Underwrite Insurance
  - Service Insurance
  - Terminate Insurance
  - Manage Property;
- Administer Grants and Subsidies
  - Provide Rental Assistance, and Operating Subsidy, to HUD-approved agents
  - Conduct Physical and Financial Assessment of HUD Properties;
  - Provide Grants;
- Enforce Fair Housing and Equal Housing Opportunities
  - Restore and Maintain the Public's Trust
  - Conduct Fair Housing Education and Outreach Programs
  - Ensure Compliance with HUD Legal Agreements and Statutes
  - Undertake Immediate and Necessary Enforcement and Compliance Actions to Rectify Emergency Conditions
  - Investigate Program Offices' Complaints and Requests for Intervention
  - Initiate Debarment and Suspension Actions and Manage Limited Denial of Participation (LDP) Appeals;
- Provide Secondary Market for Government Insured and Guaranteed Loans
  - Ginnie Mae Mortgage-Backed Securities Program
  - Ginnie Mae Multiclass Securities Program.

Key Support Processes

- Administrative and Management Information Systems;
- Information Technology Infrastructure.

HUD's most critical external dependencies may be classified under two general headings, major infrastructure failures and external business partners. Included in major infrastructure failures are water, electrical, or natural gas-generated power, and data and voice telecommunications. If these infrastructure failures occurred, HUD would be at risk through failures of computer systems, security systems, environmental control, elevators, and telephone and fax line usage. Under the general heading of external business partners, HUD's most critical dependencies are with the Treasury Department, the Federal Reserve, Housing Authorities, grantees, and the banks with which HUD has a direct relationship.

VI. Exception Report on Systems.

Provide a brief status of work on each mission-critical system which is not year 2000 compliant that is either (1) being replaced and has fallen behind the

agency's internal schedule by 2 months or more, or (2) being repaired and has fallen behind the agency's milestones by 2 months or more.

a. If this is the first time this system is reported, include:

1. An explanation of why the effort to fix or replace the system has fallen behind and what is being done to bring the effort back on schedule.

2. The new schedule for replacement or completion of the remaining phases.

3. A description of the funding and other resources being devoted to completing the replacement or fixing the system.

RESPONSE: As of February 10, 1999, no system had fallen behind by two months or more.

b. If this system has been previously reported and remains behind schedule include:

1. An explanation of why the system remains behind schedule and what actions are being taken to mitigate the situation.

2. A summary of the contingency plan for performing the function supported by the system should the replacement or conversion effort not be completed on time.

RESPONSE: As of February 10, 1999, no system had fallen behind by two months or more.

VII. <u>Systems scheduled for implementation after March 1999.</u>

Please include a list of those mission-critical systems where repair *or* replacement cannot be implemented by the March 1999 deadline. The list should include:

a. The title of the systems.

b. A brief description of what the system does.

c. The reason that the system cannot be implemented by the deadline.

d. A summary of the contingency plan for performing the function supported by the system should the replacement or conversion effort not be completed on time. Indicate when the contingency plan would be triggered, and provide an assessment of the effect on agency operations should the system fail, including anticipated problems. If you do not yet have a contingency plan, indicate when it will be in place.

RESPONSE: All the Department's systems that are being repaired or that are replacing existing systems are scheduled to be implemented by March 1999.

VIII. Other Management Information.

a. On the first row, report your estimates of costs associated with year 2000 remediation, including both information technology costs[1], as well as costs associated with non-IT systems. Report totals in millions of dollars. (For amounts under $10 million report to tenths of a million.)

RESPONSE:

Fiscal Year	1996	1997	1998	1999	2000	Total
Current Cost Estimates	$0.7m*	$6.2m*	$20.8m*	$23.2m	$11.3m	$62.2m

***Actual Costs**

b. If there have been dramatic changes in cost, please explain.

RESPONSE: The Fiscal Year 2000 base funding amount has been adjusted to $11.3 million from $6.2 million; an increase of $5.1 million. This increase is to cover Year 2000 Contingency, emergency response, and Day Zero planning and activity costs. The total cost estimate for the Department's Year 2000 effort will now be $62.2 million.

c. If there have been significant changes to your agency's schedule, changes in the number of mission-critical systems, changes to the number of systems behind schedule, please explain.

RESPONSE: This is not applicable.

[1] **Information Technology costs to be included are described in Section 43 of OMB Circular No. A-11. DOD should report obligational authority requirements for business and weapons systems.**

d. Are there any concerns with the availability of key personnel?

RESPONSE: No.

e. Are there any other problems affecting progress?

RESPONSE: No